

DERWENT-ACC-NO: 2003-567150

DERWENT-WEEK: 200353

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TITLE: Event-triggering command perception system for
SDRAM bus peripheral control, perceives command upon
detection of predetermined sequence of relevant SDRAM
addresses

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PRIORITY-DATA: 2001US-0966824 (September 27, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
WO 2003027862 A2 G06F 013/00	April 3, 2003	E 000
US 20030061454 A1 G06F 013/00	March 27, 2003	N/A 013

DESIGNATED-STATES: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO
CR CU CZ
DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE
SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW AT BE BG CH CY CZ DE DK
EA EE
ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR
TZ UG
ZM ZW

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
WO2003027862A2 August 29, 2002	N/A	2002WO-US27858
US20030061454A1 September 27, 2001	N/A	2001US-0966824

INT-CL (IPC): G06F013/00

ABSTRACTED-PUB-NO: US20030061454A

BASIC-ABSTRACT:

NOVELTY - A field programmable gate array (FPGA) (202) perceives command upon detection of a predetermined sequence of relevant SDRAM addresses within a string of SDRAM addresses. The string includes 'N' or less non-relevant addresses between any two sequential relevant memory addresses.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method to perceive event triggering command.

USE - To perceive event-triggering command for control of SDRAM bus peripheral in computer.

ADVANTAGE - Utilizes separated device address call sequencing for control of memory bus peripheral devices, thereby allowing for spurious data between values in the address sequence.

DESCRIPTION OF DRAWING(S) - The figure illustrates the operation of an active memory bus peripheral.

FPGA 202

CHOSEN-DRAWING: Dwg.2/6

TITLE-TERMS: EVENT TRIGGER COMMAND PERCEPTION SYSTEM BUS PERIPHERAL CONTROL

COMMAND DETECT PREDETERMINED SEQUENCE RELEVANT ADDRESS

DERWENT-CLASS: T01 U13 U14

EPI-CODES: T01-H01A; U13-C04C; U14-A03B4A; U14-A07C;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2003-450896

L Number	Hits	Search Text	DB	Time stamp
1	1	("5237616").PN.	USPAT; US-PGPUB	2004/01/07 17:28
2	1	("5051947").PN.	USPAT; US-PGPUB	2004/01/07 17:28
302	7	((US-6510532-\$ or US-6078545-\$ or US-6041389-\$ or US-6035353-\$ or US-6000013-\$ or US-5920885-\$ or US-5905907-\$ or US-5892826-\$ or US-5818939-\$ or US-5761694-\$ or US-5721946-\$ or US-5712991-\$ or US-5416916-\$ or US-5408678-\$ or US-5377264-\$ or US-5249232-\$ or US-5930453-\$ or US-5715476-\$ or US-6334164-\$ or US-5214775-\$ or US-6434699-\$ or US-6115816-\$ or US-6061449-\$).did. or (US-20030061406-\$ or US-20030061454-\$ or US-20030227800-\$ or US-20030198072-\$ or US-20030058729-\$ or US-20020199046-\$ or US-20020065972-\$).did.) not ((US-6510532-\$ or US-6078545-\$ or US-6041389-\$ or US-6035353-\$ or US-5920885-\$ or US-5905907-\$ or US-5818939-\$ or US-5761694-\$ or US-5721946-\$ or US-5712991-\$ or US-5416916-\$ or US-5249232-\$ or US-5930453-\$ or US-5715476-\$ or US-6334164-\$ or US-5214775-\$).did. or (US-20030061406-\$ or US-20030061454-\$ or US-20030227800-\$ or US-20030198072-\$ or US-20030058729-\$ or US-20020199046-\$ or US-20020065972-\$).did.)	USPAT; US-PGPUB	2004/01/07 17:28 2004/01/07 17:28 2004/01/07 17:53
359	352	sequence with control\$4 with address.ab.	USPAT; US-PGPUB	2004/01/07 17:57
360	6	sequence with control\$4 with address same (recogniz\$4 perceiv\$4).ab.	USPAT; US-PGPUB	2004/01/07 17:59
361	5728	data with sequence same (decrypt\$6 recogniz\$4 perceiv\$4)	USPAT; US-PGPUB	2004/01/07 18:40
362	2110	data with sequence with(decrypt\$6 recogniz\$4 perceiv\$4)	USPAT; US-PGPUB	2004/01/07 18:01
363	119	(data with sequence with(decrypt\$6 recogniz\$4 perceiv\$4)) with command	USPAT; US-PGPUB	2004/01/07 18:00
364	11534	data with sequence with(decrypt\$6 recogniz\$4 perceiv\$4 detect\$4)	USPAT; US-PGPUB	2004/01/07 18:01
365	3415	data near (sequence string) with(decrypt\$6 recogniz\$4 perceiv\$4 detect\$4)	USPAT; US-PGPUB	2004/01/07 18:02
367	29	data near (sequence string) with(decrypt\$6 recogniz\$4 perceiv\$4 detect\$4)near2 command	USPAT; US-PGPUB	2004/01/07 18:02
366	11	data near (sequence string) with(decrypt\$6 recogniz\$4 perceiv\$4 detect\$4)near command	USPAT; US-PGPUB	2004/01/07 18:04
368	550	data near (sequence string) same (decrypt\$6 recogniz\$4 perceiv\$4 detect\$4) near4 (relavent command code)	USPAT; US-PGPUB	2004/01/07 18:05
369	26	(data near (sequence string) same (decrypt\$6 recogniz\$4 perceiv\$4 detect\$4) near4 (relavent command code)) same address with sequence	USPAT; US-PGPUB	2004/01/07 18:27
370	0	patern with recongiz\$4	USPAT; US-PGPUB	2004/01/07 18:27
371	5	pattern with recongiz\$4	USPAT; US-PGPUB	2004/01/07 18:28
372	77	713/190.icls.	USPAT; US-PGPUB	2004/01/07 18:28
373	33903	(data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5)	USPAT; US-PGPUB	2004/01/07 18:56

374	1616	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5).ab.	USPAT; US-PGPUB	2004/01/07 18:46
375	69	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5).ti.	USPAT; US-PGPUB	2004/01/07 18:41
376	0	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5).ab.) and periperal with control\$4	USPAT; US-PGPUB	2004/01/07 18:49
377	85	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5).ab.) and peripheral with control\$4	USPAT; US-PGPUB	2004/01/07 18:48
383	2	sequence with (bounded predefined) with spurious adj data	USPAT; US-PGPUB	2004/01/07 18:52
386	1	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5).ab.) and spurious adj data	USPAT; US-PGPUB	2004/01/07 18:56
388	10	((US-6510532-\$ or US-6078545-\$ or US-6041389-\$ or US-6035353-\$ or US-5920885-\$ or US-5905907-\$ or US-5818939-\$ or US-5761694-\$ or US-5721946-\$ or US-5712991-\$ or US-5416916-\$ or US-5249232-\$ or US-5930453-\$ or US-5715476-\$ or US-6334164-\$ or US-5214775-\$ or US-5553059-\$ or US-5467088-\$ or US-5231545-\$ or US-4060797-\$ or US-6665796-\$ or US-6351814-\$ or US-6324676-\$ or US-6338099-\$ or US-6226742-\$ or US-6434699-\$).did. or (US-6115816-\$ or US-6061449-\$ or US-6000013-\$ or US-5892826-\$ or US-5408678-\$ or US-5377264-\$).did. or (US-20030061406-\$ or US-20030061454-\$ or US-20030227800-\$ or US-20030198072-\$ or US-20030058729-\$ or US-20020199046-\$ or US-20020065972-\$ or US-20010047480-\$).did.) not ((US-6510532-\$ or US-6078545-\$ or US-6041389-\$ or US-6035353-\$ or US-6000013-\$ or US-5920885-\$ or US-5905907-\$ or US-5892826-\$ or US-5818939-\$ or US-5761694-\$ or US-5721946-\$ or US-5712991-\$ or US-5416916-\$ or US-5408678-\$ or US-5377264-\$ or US-5249232-\$ or US-5930453-\$ or US-5715476-\$ or US-6334164-\$ or US-5214775-\$ or US-6434699-\$ or US-6115816-\$ or US-6061449-\$).did. or (US-20030061406-\$ or US-20030061454-\$ or US-20030227800-\$ or US-20030198072-\$ or US-20030058729-\$ or US-20020199046-\$ or US-20020065972-\$).did.)	USPAT; US-PGPUB	2004/01/07 18:55
391	31	((data adj sequence code command) with (decrypt\$6 recogniz\$4 perceiv\$4 authenticat\$5)) same relevant adj data ("6038603").PN.	USPAT; US-PGPUB	2004/01/07 18:57
-	1	sequence with control\$4 with address.ab.	USPAT; US-PGPUB	2004/01/06 17:30
-	352	sequence with control\$4 with address same periperal with bus with memory.ab.	USPAT; US-PGPUB	2004/01/07 17:56
-	0	sequence with control\$4 with address same periperal with bus with memory.ab.	USPAT; US-PGPUB	2004/01/06 17:32
-	27	sequence with control\$4 with address same (periperal memory) with bus.ab.	USPAT; US-PGPUB	2004/01/07 17:56
-	1	("6572875").PN.	USPAT; US-PGPUB	2004/01/07 11:54

-	145	(chip bus) near3 select with (memory adj bus)	USPAT; US-PPGPUB	2004/01/07 11:08
-	23	((chip bus) near3 select with (memory adj bus)) same switch\$3	USPAT; US-PPGPUB	2004/01/07 11:18
-	1	2002wo-us27858.ap,prai.	JPO; DERWENT	2004/01/07 17:24
-	1	2003-567150.NRAN.	DERWENT	2004/01/07 11:55

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
3 April 2003 (03.04.2003)

PCT

(10) International Publication Number
WO 03/027862 A3(51) International Patent Classification⁷: G06F 13/00, 9/38

(21) International Application Number: PCT/US02/27858

(22) International Filing Date: 29 August 2002 (29.08.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/966,824 27 September 2001 (27.09.2001) US

(71) Applicant: INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).

(72) Inventors: RUEHLE, Mike; 2655 Kaystone Avenue, #30, Santa Clara, CA 95051 (US). COSKY, Jason; 153 Elm Avenue, San Bruno, CA 94066 (US).

(74) Agents: HAILS, Robert, L., Jr.; Kenyon & Kenyon, 333 West San Carlos Street, Suite 600, San Jose, CA 95110 et al. (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KB, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PII, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

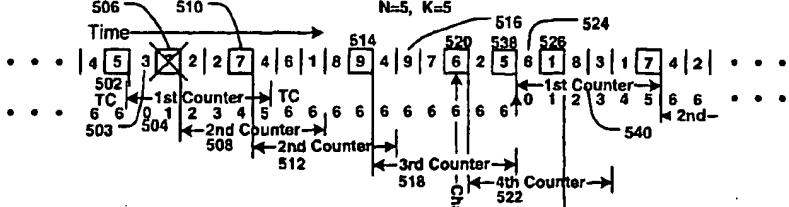
[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR COMMAND PERCEPTION BY DATA VALUE SEQUENCING, ALLOWING FINITE AMOUNT OF UNRELATED INTERIM DATA

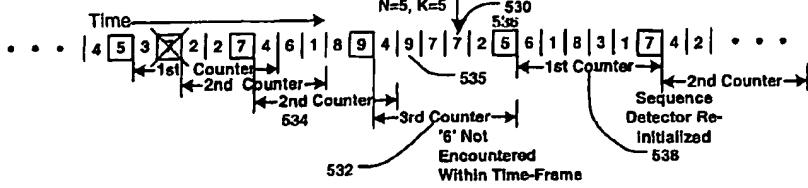
Time Chart Descriptive of Sequence Detection

Data Values Witnessed Over Time: ...45372274618949772561831742...
Command Sequence: 57961

N=5, K=5

Data Values Witnessed Over Time: ...45372274618949772561831742...
Command Sequence: 57961

N=5, K=5



WO 03/027862 A3

(57) Abstract: A system and method for peripheral control. The present invention relates to utilizing device address call sequencing for control of active memory bus peripheral devices, allowing for a pre-defined amount of spurious data between terms in the sequence.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 02/27858

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F13/00 G06F9/38

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 051 947 A (MESSENGER CHARLES H ET AL) 24 September 1991 (1991-09-24) column 3, line 1 -column 6, line 7 column 13, line 35 -column 15, line 57 figure 3C — US 6 249 896 B1 (HO SON HONG ET AL) 19 June 2001 (2001-06-19) column 2, line 59 -column 3, line 30 — US 5 237 616 A (ADEN STEVEN G ET AL) 17 August 1993 (1993-08-17) column 1, line 54 -column 2, line 23 column 2, line 38 -column 3, line 31 column 5, line 7 - line 60 figure 3 — —	1-30
A		1-30
A		1-30

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the International search

17 June 2003

Date of mailing of the International search report

26/06/2003

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Interns Application No
PCT/US 02/27858

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Character of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 109 333 A (KAWAGUCHI HITOSHI ET AL) 28 April 1992 (1992-04-28) column 1, line 53 -column 2, line 41 column 10, line 8 - line 32 -----	1-30
A	US 4 388 695 A (HEINEMANN JOSEPH B) 14 June 1983 (1983-06-14) abstract -----	1-30
A	MOSANYA E ET AL: "CRYPTOBOOSTER: A RECONFIGURABLE AND MODULAR CRYPTOGRAPHIC COPROCESSOR", CRYPTOGRAPHIC HARDWARE AND EMBEDDED SYSTEMS. 1ST INTERNATIONAL WORKSHOP, CHES'99. WORCESTER, MA, AUG. 12 - 13, 1999 PROCEEDINGS, LECTURE NOTES IN COMPUTER SCIENCE, BERLIN: SPRINGER, DE, VOL. VOL. 1717, PAGE(S) 246-256 XP000989320 ISBN: 3-540-66646-X page 1 -----	1-30

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intern: Application No
PCT/US 02/27858

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5051947	A	24-09-1991	DE DE EP IL JP JP JP	3650360 D1 3650360 T2 0233401 A2 80646 A 2067669 C 7097374 B 62217321 A	07-09-1995 28-03-1996 26-08-1987 30-06-1991 10-07-1996 18-10-1995 24-09-1987
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US 4388695	A	14-06-1983	CA DE GB JP	1153474 A1 3048365 A1 2070821 A , B 56134400 A	06-09-1983 10-09-1981 09-09-1981 21-10-1981